# **Appendix 1**

$P\_{9}=1$, $P\_{8}=(a\_{1}+b\_{2}+c\_{3}+d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9})$

$P\_{7}=(a\_{1}b\_{2}+a\_{1}c\_{3}+b\_{2}c\_{3}+a\_{1}d\_{4}+b\_{2}d\_{4}+c\_{3}d\_{4}+a\_{1}e\_{5}+b\_{2}e\_{5}+c\_{3}e\_{5}+d\_{4}e\_{5}+a\_{1}f\_{6}+b\_{2}f\_{6}+c\_{3}f\_{6}+d\_{4}f\_{6}+e\_{5}f\_{6}+a\_{1}g\_{7}+b\_{2}g\_{7}+c\_{3}g\_{7}+d\_{4}g\_{7}+e\_{5}g\_{7}+f\_{6}g\_{7}+a\_{1}h\_{8}+b\_{2}h\_{8}+c\_{3}h\_{8}+d\_{4}h\_{8}+e\_{5}h\_{8}+f\_{6}h\_{8}+g\_{7}h\_{8}+a\_{1}k\_{9}+b\_{2}k\_{9}+c\_{3}k\_{9}+d\_{4}k\_{9}+e\_{5}k\_{9}+f\_{6}k\_{9}+g\_{7}k\_{9}+h\_{8}k\_{9})$

$P\_{6}=c\_{3}d\_{4}e\_{5}-c\_{6}e\_{3}f\_{5}+c\_{3}d\_{4}f\_{6}+c\_{3}e\_{5}f\_{6}+d\_{4}e\_{5}f\_{6}+c\_{3}d\_{4}g\_{7}+c\_{3}e\_{5}g\_{7}+d\_{4}e\_{5}g\_{7}+c\_{3}f\_{6}g\_{7}+d\_{4}f\_{6}g\_{7}+e\_{5}f\_{6}g\_{7}+c\_{3}d\_{4}h\_{8}+c\_{3}e\_{5}h\_{8}+d\_{4}e\_{5}h\_{8}+c\_{3}f\_{6}h\_{8}+d\_{4}f\_{6}h\_{8}+e\_{5}f\_{6}h\_{8}+c\_{3}g\_{7}h\_{8}+d\_{4}g\_{7}h\_{8}+e\_{5}g\_{7}h\_{8}+f\_{6}g\_{7}h\_{8}+(e\_{5}f\_{6}+e\_{5}g\_{7}+f\_{6}g\_{7}+(e\_{5}+f\_{6}+g\_{7})h\_{8}+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8})+c\_{3}(d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8}))k\_{9}+b\_{2}(e\_{5}f\_{6}+e\_{5}g\_{7}+f\_{6}g\_{7}+e\_{5}h\_{8}+f\_{6}h\_{8}+g\_{7}h\_{8}+(e\_{5}+f\_{6}+g\_{7}+h\_{8})k\_{9}+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9})+c\_{3}(d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9}))+a\_{1}(d\_{4}e\_{5}+d\_{4}f\_{6}+e\_{5}f\_{6}+d\_{4}g\_{7}+e\_{5}g\_{7}+f\_{6}g\_{7}+d\_{4}h\_{8}+e\_{5}h\_{8}+f\_{6}h\_{8}+g\_{7}h\_{8}+(d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8})k\_{9}+c\_{3}(d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9})+b\_{2}(c\_{3}+d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9}))$

$P\_{5}=-a\_{4}b\_{1}c\_{2}d\_{3}+b\_{2}c\_{3}d\_{4}e\_{5}-b\_{2}c\_{6}e\_{3}f\_{5}-c\_{6}d\_{4}e\_{3}f\_{5}+b\_{2}c\_{3}d\_{4}f\_{6}+b\_{2}c\_{3}e\_{5}f\_{6}+b\_{2}d\_{4}e\_{5}f\_{6}+c\_{3}d\_{4}e\_{5}f\_{6}+b\_{2}c\_{3}d\_{4}g\_{7}+b\_{2}c\_{3}e\_{5}g\_{7}+b\_{2}d\_{4}e\_{5}g\_{7}+c\_{3}d\_{4}e\_{5}g\_{7}-c\_{6}e\_{3}f\_{5}g\_{7}+b\_{2}c\_{3}f\_{6}g\_{7}+b\_{2}d\_{4}f\_{6}g\_{7}+c\_{3}d\_{4}f\_{6}g\_{7}+b\_{2}e\_{5}f\_{6}g\_{7}+c\_{3}e\_{5}f\_{6}g\_{7}+d\_{4}e\_{5}f\_{6}g\_{7}+b\_{2}c\_{3}d\_{4}h\_{8}+b\_{2}c\_{3}e\_{5}h\_{8}+b\_{2}d\_{4}e\_{5}h\_{8}+c\_{3}d\_{4}e\_{5}h\_{8}-c\_{6}e\_{3}f\_{5}h\_{8}+b\_{2}c\_{3}f\_{6}h\_{8}+b\_{2}d\_{4}f\_{6}h\_{8}+c\_{3}d\_{4}f\_{6}h\_{8}+b\_{2}e\_{5}f\_{6}h\_{8}+c\_{3}e\_{5}f\_{6}h\_{8}+d\_{4}e\_{5}f\_{6}h\_{8}+b\_{2}c\_{3}g\_{7}h\_{8}+b\_{2}d\_{4}g\_{7}h\_{8}+c\_{3}d\_{4}g\_{7}h\_{8}+b\_{2}e\_{5}g\_{7}h\_{8}+c\_{3}e\_{5}g\_{7}h\_{8}+d\_{4}e\_{5}g\_{7}h\_{8}+b\_{2}f\_{6}g\_{7}h\_{8}+c\_{3}f\_{6}g\_{7}h\_{8}+d\_{4}f\_{6}g\_{7}h\_{8}+e\_{5}f\_{6}g\_{7}h\_{8}-b\_{9}c\_{2}h\_{3}k\_{8}+b\_{2}c\_{3}d\_{4}k\_{9}+b\_{2}c\_{3}e\_{5}k\_{9}+b\_{2}d\_{4}e\_{5}k\_{9}+c\_{3}d\_{4}e\_{5}k\_{9}-c\_{6}e\_{3}f\_{5}k\_{9}+b\_{2}c\_{3}f\_{6}k\_{9}+b\_{2}d\_{4}f\_{6}k\_{9}+c\_{3}d\_{4}f\_{6}k\_{9}+b\_{2}e\_{5}f\_{6}k\_{9}+c\_{3}e\_{5}f\_{6}k\_{9}+d\_{4}e\_{5}f\_{6}k\_{9}+b\_{2}c\_{3}g\_{7}k\_{9}+b\_{2}d\_{4}g\_{7}k\_{9}+c\_{3}d\_{4}g\_{7}k\_{9}+b\_{2}e\_{5}g\_{7}k\_{9}+c\_{3}e\_{5}g\_{7}k\_{9}+d\_{4}e\_{5}g\_{7}k\_{9}+b\_{2}f\_{6}g\_{7}k\_{9}+c\_{3}f\_{6}g\_{7}k\_{9}+d\_{4}f\_{6}g\_{7}k\_{9}+e\_{5}f\_{6}g\_{7}k\_{9}+b\_{2}c\_{3}h\_{8}k\_{9}+b\_{2}d\_{4}h\_{8}k\_{9}+c\_{3}d\_{4}h\_{8}k\_{9}+b\_{2}e\_{5}h\_{8}k\_{9}+c\_{3}e\_{5}h\_{8}k\_{9}+d\_{4}e\_{5}h\_{8}k\_{9}+b\_{2}f\_{6}h\_{8}k\_{9}+c\_{3}f\_{6}h\_{8}k\_{9}+d\_{4}f\_{6}h\_{8}k\_{9}+e\_{5}f\_{6}h\_{8}k\_{9}+b\_{2}g\_{7}h\_{8}k\_{9}+c\_{3}g\_{7}h\_{8}k\_{9}+d\_{4}g\_{7}h\_{8}k\_{9}+e\_{5}g\_{7}h\_{8}k\_{9}+f\_{6}g\_{7}h\_{8}k\_{9}+a\_{1}(-c\_{6}e\_{3}f\_{5}+d\_{4}e\_{5}f\_{6}+d\_{4}e\_{5}g\_{7}+d\_{4}f\_{6}g\_{7}+e\_{5}f\_{6}g\_{7}+d\_{4}e\_{5}h\_{8}+d\_{4}f\_{6}h\_{8}+e\_{5}f\_{6}h\_{8}+d\_{4}g\_{7}h\_{8}+e\_{5}g\_{7}h\_{8}+f\_{6}g\_{7}h\_{8}+d\_{4}e\_{5}k\_{9}+d\_{4}f\_{6}k\_{9}+e\_{5}f\_{6}k\_{9}+d\_{4}g\_{7}k\_{9}+e\_{5}g\_{7}k\_{9}+f\_{6}g\_{7}k\_{9}+d\_{4}h\_{8}k\_{9}+e\_{5}h\_{8}k\_{9}+f\_{6}h\_{8}k\_{9}+g\_{7}h\_{8}k\_{9}+c\_{3}(f\_{6}g\_{7}+f\_{6}h\_{8}+g\_{7}h\_{8}+f\_{6}k\_{9}+g\_{7}k\_{9}+h\_{8}k\_{9}+e\_{5}(f\_{6}+g\_{7}+h\_{8}+k\_{9})+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9}))+b\_{2}(e\_{5}f\_{6}+e\_{5}g\_{7}+f\_{6}g\_{7}+e\_{5}h\_{8}+f\_{6}h\_{8}+g\_{7}h\_{8}+e\_{5}k\_{9}+f\_{6}k\_{9}+g\_{7}k\_{9}+h\_{8}k\_{9}+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9})+c\_{3}(d\_{4}+e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9})))$

$P\_{4}=-b\_{2}c\_{6}d\_{4}e\_{3}f\_{5}+b\_{2}c\_{3}d\_{4}e\_{5}f\_{6}+b\_{2}c\_{3}d\_{4}e\_{5}g\_{7}-b\_{2}c\_{6}e\_{3}f\_{5}g\_{7}-c\_{6}d\_{4}e\_{3}f\_{5}g\_{7}+b\_{2}c\_{3}d\_{4}f\_{6}g\_{7}+b\_{2}c\_{3}e\_{5}f\_{6}g\_{7}+b\_{2}d\_{4}e\_{5}f\_{6}g\_{7}+c\_{3}d\_{4}e\_{5}f\_{6}g\_{7}+b\_{2}c\_{3}d\_{4}e\_{5}h\_{8}-b\_{2}c\_{6}e\_{3}f\_{5}h\_{8}-c\_{6}d\_{4}e\_{3}f\_{5}h\_{8}+b\_{2}c\_{3}d\_{4}f\_{6}h\_{8}+b\_{2}c\_{3}e\_{5}f\_{6}h\_{8}+b\_{2}d\_{4}e\_{5}f\_{6}h\_{8}+c\_{3}d\_{4}e\_{5}f\_{6}h\_{8}+b\_{2}c\_{3}d\_{4}g\_{7}h\_{8}+b\_{2}c\_{3}e\_{5}g\_{7}h\_{8}+b\_{2}d\_{4}e\_{5}g\_{7}h\_{8}+c\_{3}d\_{4}e\_{5}g\_{7}h\_{8}-c\_{6}e\_{3}f\_{5}g\_{7}h\_{8}+b\_{2}c\_{3}f\_{6}g\_{7}h\_{8}+b\_{2}d\_{4}f\_{6}g\_{7}h\_{8}+c\_{3}d\_{4}f\_{6}g\_{7}h\_{8}+b\_{2}e\_{5}f\_{6}g\_{7}h\_{8}+c\_{3}e\_{5}f\_{6}g\_{7}h\_{8}+d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}-b\_{9}c\_{2}d\_{4}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{5}h\_{3}k\_{8}-b\_{9}c\_{2}f\_{6}h\_{3}k\_{8}-b\_{9}c\_{2}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{3}h\_{5}k\_{8}+b\_{9}c\_{2}g\_{3}h\_{7}k\_{8}+b\_{1}c\_{2}(-a\_{6}e\_{3}f\_{5}+a\_{9}h\_{3}k\_{8})+(c\_{3}d\_{4}e\_{5}f\_{6}+c\_{3}d\_{4}e\_{5}g\_{7}+c\_{3}d\_{4}f\_{6}g\_{7}+c\_{3}e\_{5}f\_{6}g\_{7}+d\_{4}e\_{5}f\_{6}g\_{7}+(e\_{5}f\_{6}g\_{7}+d\_{4}(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7})+c\_{3}(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7}+d\_{4}(e\_{5}+f\_{6}+g\_{7})))h\_{8}-c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7}+h\_{8})+b\_{2}(-c\_{6}e\_{3}f\_{5}+e\_{5}f\_{6}g\_{7}+(f\_{6}g\_{7}+e\_{5}(f\_{6}+g\_{7}))h\_{8}+d\_{4}(g\_{7}h\_{8}+f\_{6}(g\_{7}+h\_{8})+e\_{5}(f\_{6}+g\_{7}+h\_{8}))+c\_{3}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}+e\_{5}(f\_{6}+g\_{7}+h\_{8})+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8}))))k\_{9}-a\_{4}b\_{1}c\_{2}(d\_{5}e\_{3}+d\_{3}(e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9}))+a\_{1}(c\_{3}d\_{4}e\_{5}f\_{6}+c\_{3}d\_{4}e\_{5}g\_{7}+c\_{3}d\_{4}f\_{6}g\_{7}+c\_{3}e\_{5}f\_{6}g\_{7}+d\_{4}e\_{5}f\_{6}g\_{7}+c\_{3}d\_{4}e\_{5}h\_{8}+c\_{3}d\_{4}f\_{6}h\_{8}+c\_{3}e\_{5}f\_{6}h\_{8}+d\_{4}e\_{5}f\_{6}h\_{8}+c\_{3}d\_{4}g\_{7}h\_{8}+c\_{3}e\_{5}g\_{7}h\_{8}+d\_{4}e\_{5}g\_{7}h\_{8}+c\_{3}f\_{6}g\_{7}h\_{8}+d\_{4}f\_{6}g\_{7}h\_{8}+e\_{5}f\_{6}g\_{7}h\_{8}-b\_{9}c\_{2}h\_{3}k\_{8}+(e\_{5}f\_{6}g\_{7}+(f\_{6}g\_{7}+e\_{5}(f\_{6}+g\_{7}))h\_{8}+d\_{4}(g\_{7}h\_{8}+f\_{6}(g\_{7}+h\_{8})+e\_{5}(f\_{6}+g\_{7}+h\_{8}))+c\_{3}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}+e\_{5}(f\_{6}+g\_{7}+h\_{8})+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8})))k\_{9}-c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7}+h\_{8}+k\_{9})+b\_{2}(-c\_{6}e\_{3}f\_{5}+e\_{5}f\_{6}g\_{7}+e\_{5}f\_{6}h\_{8}+e\_{5}g\_{7}h\_{8}+f\_{6}g\_{7}h\_{8}+(g\_{7}h\_{8}+f\_{6}(g\_{7}+h\_{8})+e\_{5}(f\_{6}+g\_{7}+h\_{8}))k\_{9}+d\_{4}(g\_{7}h\_{8}+(g\_{7}+h\_{8})k\_{9}+f\_{6}(g\_{7}+h\_{8}+k\_{9})+e\_{5}(f\_{6}+g\_{7}+h\_{8}+k\_{9}))+c\_{3}(f\_{6}g\_{7}+f\_{6}h\_{8}+g\_{7}h\_{8}+(f\_{6}+g\_{7}+h\_{8})k\_{9}+e\_{5}(f\_{6}+g\_{7}+h\_{8}+k\_{9})+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8}+k\_{9}))))$

$P\_{3}=-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}f\_{6}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}f\_{6}-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}g\_{7}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}g\_{7}-b\_{2}c\_{6}d\_{4}e\_{3}f\_{5}g\_{7}-a\_{4}b\_{1}c\_{2}d\_{3}f\_{6}g\_{7}+b\_{2}c\_{3}d\_{4}e\_{5}f\_{6}g\_{7}-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}h\_{8}-b\_{2}c\_{6}d\_{4}e\_{3}f\_{5}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}f\_{6}h\_{8}+b\_{2}c\_{3}d\_{4}e\_{5}f\_{6}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}g\_{7}h\_{8}+b\_{2}c\_{3}d\_{4}e\_{5}g\_{7}h\_{8}-b\_{2}c\_{6}e\_{3}f\_{5}g\_{7}h\_{8}-c\_{6}d\_{4}e\_{3}f\_{5}g\_{7}h\_{8}+b\_{2}c\_{3}d\_{4}f\_{6}g\_{7}h\_{8}+b\_{2}c\_{3}e\_{5}f\_{6}g\_{7}h\_{8}+b\_{2}d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+c\_{3}d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{5}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{5}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}f\_{6}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}f\_{6}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{5}f\_{6}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{5}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}f\_{6}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{3}h\_{5}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{3}h\_{5}k\_{8}-b\_{9}c\_{2}e\_{3}f\_{6}h\_{5}k\_{8}-b\_{9}c\_{2}e\_{3}g\_{7}h\_{5}k\_{8}-a\_{9}b\_{1}c\_{2}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}d\_{4}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}e\_{5}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}f\_{6}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}e\_{3}g\_{5}h\_{7}k\_{8}+(d\_{4}(-c\_{6}e\_{3}f\_{5}+c\_{3}e\_{5}f\_{6})g\_{7}+(d\_{4}e\_{5}f\_{6}g\_{7}-c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7})+c\_{3}(d\_{4}e\_{5}f\_{6}+(d\_{4}e\_{5}+(d\_{4}+e\_{5})f\_{6})g\_{7}))h\_{8}-a\_{4}b\_{1}c\_{2}(d\_{5}e\_{3}+d\_{3}(e\_{5}+f\_{6}+g\_{7}+h\_{8}))+b\_{2}(d\_{4}e\_{5}f\_{6}g\_{7}+(e\_{5}f\_{6}g\_{7}+d\_{4}(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7}))h\_{8}-c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7}+h\_{8})+c\_{3}(e\_{5}f\_{6}g\_{7}+(f\_{6}g\_{7}+e\_{5}(f\_{6}+g\_{7}))h\_{8}+d\_{4}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}+e\_{5}(f\_{6}+g\_{7}+h\_{8})))))k\_{9}-a\_{6}b\_{1}c\_{2}e\_{3}f\_{5}(d\_{4}+g\_{7}+h\_{8}+k\_{9})+–a\_{1}(c\_{6}d\_{4}e\_{3}f\_{5}g\_{7}-c\_{3}d\_{4}e\_{5}f\_{6}g\_{7}+c\_{6}d\_{4}e\_{3}f\_{5}h\_{8}-c\_{3}d\_{4}e\_{5}f\_{6}h\_{8}-c\_{3}d\_{4}e\_{5}g\_{7}h\_{8}+c\_{6}e\_{3}f\_{5}g\_{7}h\_{8}-c\_{3}d\_{4}f\_{6}g\_{7}h\_{8}-c\_{3}e\_{5}f\_{6}g\_{7}h\_{8}-d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+b\_{9}c\_{2}d\_{4}h\_{3}k\_{8}+b\_{9}c\_{2}e\_{5}h\_{3}k\_{8}+b\_{9}c\_{2}f\_{6}h\_{3}k\_{8}+b\_{9}c\_{2}g\_{7}h\_{3}k\_{8}+b\_{9}c\_{2}e\_{3}h\_{5}k\_{8}-b\_{9}c\_{2}g\_{3}h\_{7}k\_{8}+(-d\_{4}e\_{5}f\_{6}g\_{7}-(e\_{5}f\_{6}g\_{7}+d\_{4}(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7}))h\_{8}+c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7}+h\_{8})+c\_{3}(-d\_{4}e\_{5}f\_{6}-(e\_{5}f\_{6}+d\_{4}(e\_{5}+f\_{6}))g\_{7}-(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7}+d\_{4}(e\_{5}+f\_{6}+g\_{7}))h\_{8}))k\_{9}+b\_{2}(-d\_{4}e\_{5}f\_{6}g\_{7}-d\_{4}e\_{5}f\_{6}h\_{8}-d\_{4}e\_{5}g\_{7}h\_{8}-d\_{4}f\_{6}g\_{7}h\_{8}-e\_{5}f\_{6}g\_{7}h\_{8}-(f\_{6}g\_{7}h\_{8}+e\_{5}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8})+d\_{4}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}+e\_{5}(f\_{6}+g\_{7}+h\_{8})))k\_{9}+c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7}+h\_{8}+k\_{9})+c\_{3}(-d\_{4}e\_{5}f\_{6}-(e\_{5}f\_{6}+d\_{4}(e\_{5}+f\_{6}))g\_{7}-(f\_{6}g\_{7}+e\_{5}(f\_{6}+g\_{7})+d\_{4}(e\_{5}+f\_{6}+g\_{7}))h\_{8}-(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}+e\_{5}(f\_{6}+g\_{7}+h\_{8})+d\_{4}(e\_{5}+f\_{6}+g\_{7}+h\_{8}))k\_{9})))$

$P\_{2}=-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}f\_{6}g\_{7}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}f\_{6}g\_{7}-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}f\_{6}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}f\_{6}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}g\_{7}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}g\_{7}h\_{8}-b\_{2}c\_{6}d\_{4}e\_{3}f\_{5}g\_{7}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}f\_{6}g\_{7}h\_{8}+b\_{2}c\_{3}d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}e\_{5}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}f\_{6}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{5}f\_{6}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{5}f\_{6}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{5}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{5}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}f\_{6}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}f\_{6}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{5}f\_{6}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}e\_{3}h\_{5}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{3}f\_{6}h\_{5}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{3}f\_{6}h\_{5}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{3}g\_{7}h\_{5}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{3}g\_{7}h\_{5}k\_{8}-b\_{9}c\_{2}e\_{3}f\_{6}g\_{7}h\_{5}k\_{8}-a\_{9}b\_{1}c\_{2}d\_{4}g\_{3}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}e\_{5}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}d\_{4}e\_{5}g\_{3}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}f\_{6}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}d\_{4}f\_{6}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}e\_{5}f\_{6}g\_{3}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}e\_{3}g\_{5}h\_{7}k\_{8}+b\_{9}c\_{2}d\_{4}e\_{3}g\_{5}h\_{7}k\_{8}+b\_{9}c\_{2}e\_{3}f\_{6}g\_{5}h\_{7}k\_{8}-(b\_{2}d\_{4}(c\_{6}e\_{3}f\_{5}-c\_{3}e\_{5}f\_{6})g\_{7}+(d\_{4}(c\_{6}e\_{3}f\_{5}-c\_{3}e\_{5}f\_{6})g\_{7}+b\_{2}(-c\_{3}d\_{4}e\_{5}f\_{6}-(c\_{3}d\_{4}e\_{5}+(c\_{3}d\_{4}+(c\_{3}+d\_{4})e\_{5})f\_{6})g\_{7}+c\_{6}e\_{3}f\_{5}(d\_{4}+g\_{7})))h\_{8}+a\_{4}b\_{1}c\_{2}(d\_{5}e\_{3}(f\_{6}+g\_{7}+h\_{8})+d\_{3}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}+e\_{5}(f\_{6}+g\_{7}+h\_{8}))))k\_{9}-a\_{6}b\_{1}c\_{2}e\_{3}f\_{5}(h\_{8}k\_{9}+g\_{7}(h\_{8}+k\_{9})+d\_{4}(g\_{7}+h\_{8}+k\_{9}))+a\_{1}(c\_{3}d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}-b\_{9}c\_{2}d\_{4}e\_{5}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}f\_{6}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{5}f\_{6}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}e\_{5}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}f\_{6}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{3}h\_{5}k\_{8}-b\_{9}c\_{2}e\_{3}f\_{6}h\_{5}k\_{8}-b\_{9}c\_{2}e\_{3}g\_{7}h\_{5}k\_{8}+b\_{9}c\_{2}d\_{4}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}e\_{5}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}f\_{6}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}e\_{3}g\_{5}h\_{7}k\_{8}+(d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+c\_{3}(e\_{5}f\_{6}g\_{7}h\_{8}+d\_{4}(e\_{5}f\_{6}g\_{7}+(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7})h\_{8})))k\_{9}-c\_{6}e\_{3}f\_{5}(g\_{7}h\_{8}k\_{9}+d\_{4}(h\_{8}k\_{9}+g\_{7}(h\_{8}+k\_{9})))+b\_{2}(d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+(e\_{5}f\_{6}g\_{7}h\_{8}+d\_{4}(e\_{5}f\_{6}g\_{7}+(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7})h\_{8}))k\_{9}-c\_{6}e\_{3}f\_{5}(g\_{7}h\_{8}+(g\_{7}+h\_{8})k\_{9}+d\_{4}(g\_{7}+h\_{8}+k\_{9}))+c\_{3}(e\_{5}f\_{6}g\_{7}h\_{8}+(f\_{6}g\_{7}h\_{8}+e\_{5}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8}))k\_{9}+d\_{4}(f\_{6}g\_{7}h\_{8}+(g\_{7}h\_{8}+f\_{6}(g\_{7}+h\_{8}))k\_{9}+e\_{5}(g\_{7}h\_{8}+(g\_{7}+h\_{8})k\_{9}+f\_{6}(g\_{7}+h\_{8}+k\_{9}))))))$

$P\_{1}=-a\_{4}b\_{1}c\_{2}d\_{5}e\_{3}f\_{6}g\_{7}h\_{8}-a\_{4}b\_{1}c\_{2}d\_{3}e\_{5}f\_{6}g\_{7}h\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}e\_{5}f\_{6}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}e\_{5}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}f\_{6}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{5}f\_{6}g\_{7}h\_{3}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{5}f\_{6}g\_{7}h\_{3}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}e\_{3}f\_{6}h\_{5}k\_{8}+a\_{9}b\_{1}c\_{2}d\_{4}e\_{3}g\_{7}h\_{5}k\_{8}+a\_{9}b\_{1}c\_{2}e\_{3}f\_{6}g\_{7}h\_{5}k\_{8}-b\_{9}c\_{2}d\_{4}e\_{3}f\_{6}g\_{7}h\_{5}k\_{8}-a\_{9}b\_{1}c\_{2}d\_{4}e\_{5}g\_{3}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}d\_{4}f\_{6}g\_{3}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}e\_{5}f\_{6}g\_{3}h\_{7}k\_{8}+b\_{9}c\_{2}d\_{4}e\_{5}f\_{6}g\_{3}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}d\_{4}e\_{3}g\_{5}h\_{7}k\_{8}-a\_{9}b\_{1}c\_{2}e\_{3}f\_{6}g\_{5}h\_{7}k\_{8}+b\_{9}c\_{2}d\_{4}e\_{3}f\_{6}g\_{5}h\_{7}k\_{8}-(b\_{2}d\_{4}(c\_{6}e\_{3}f\_{5}-c\_{3}e\_{5}f\_{6})g\_{7}h\_{8}+a\_{4}b\_{1}c\_{2}(d\_{5}e\_{3}(f\_{6}g\_{7}+(f\_{6}+g\_{7})h\_{8})+d\_{3}(e\_{5}f\_{6}g\_{7}+(e\_{5}f\_{6}+(e\_{5}+f\_{6})g\_{7})h\_{8})))k\_{9}+a\_{1}(-b\_{9}c\_{2}(f\_{6}(g\_{7}(e\_{5}h\_{3}+e\_{3}h\_{5})-(e\_{5}g\_{3}+e\_{3}g\_{5})h\_{7})+d\_{4}(e\_{5}((f\_{6}+g\_{7})h\_{3}-g\_{3}h\_{7})+f\_{6}(g\_{7}h\_{3}+e\_{3}h\_{5}-g\_{3}h\_{7})+e\_{3}(g\_{7}h\_{5}-g\_{5}h\_{7})))k\_{8}+d\_{4}(-c\_{6}e\_{3}f\_{5}+c\_{3}e\_{5}f\_{6})g\_{7}h\_{8}k\_{9}+b\_{2}(d\_{4}(-c\_{6}e\_{3}f\_{5}+c\_{3}e\_{5}f\_{6})g\_{7}h\_{8}+(d\_{4}e\_{5}f\_{6}g\_{7}h\_{8}+c\_{3}(d\_{4}e\_{5}f\_{6}g\_{7}+(d\_{4}e\_{5}f\_{6}+(d\_{4}e\_{5}+(d\_{4}+e\_{5})f\_{6})g\_{7})h\_{8})-c\_{6}e\_{3}f\_{5}(g\_{7}h\_{8}+d\_{4}(g\_{7}+h\_{8})))k\_{9}))-a\_{6}b\_{1}c\_{2}e\_{3}f\_{5}(g\_{7}h\_{8}k\_{9}+d\_{4}(h\_{8}k\_{9}+g\_{7}(h\_{8}+k\_{9})))$

$P\_{0}=a\_{1}b\_{9}c\_{2}d\_{4}f\_{6}k\_{8}e\_{5}g\_{3}\left(η\right)+a\_{1}b\_{9}c\_{2}d\_{4}f\_{6}k\_{8}e\_{3}g\_{5}\left(η\right)+a\_{9}b\_{1}c\_{2}d\_{4}f\_{6}k\_{8}e\_{5}g\_{3}\left(η\right)+a\_{9}b\_{1}c\_{2}d\_{4}f\_{6}k\_{8}e\_{3}g\_{5}\left(η\right)+a\_{1}b\_{2}d\_{4}g\_{7}h\_{8}k\_{9}\left(c\_{6}e\_{3}f\_{5}-c\_{3}e\_{5}f\_{6}\right)+a\_{4}b\_{1}c\_{2}f\_{6}g\_{7}h\_{8}k\_{9}\left(d\_{5}e\_{3}+d\_{3}e\_{5}\right)+a\_{6}b\_{1}c\_{2}d\_{4}e\_{3}f\_{5}g\_{7}h\_{8}k\_{9}>0$,

 Where, $c\_{6}e\_{3}f\_{5}>c\_{3}e\_{5}f\_{6}$ i.e. $γγ\_{1}τ\_{2}>CE$